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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,807	11/14/2005	Raoul Guilielmus Prick	ALG10220P00020US	2206
32116 7590 02/03/2009 WOOD, PHILLIPS, KATZ, CLARK & MORTIMER 500 W. MADISON STREET SUITE 3800 CHICAGO, IL 60661				
EXAMINER HAUTH, GALEN H				
ART UNIT 1791		PAPER NUMBER		
MAIL DATE 02/03/2009		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/525,807

**Applicant(s)**

PRICK, RAOU L. GUILIELMUS

**Examiner**

GALEN HAUTH

**Art Unit**

1791

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6, 9, 10 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-10, and 16-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. Acknowledgment is made to applicant's amendment of claim 1. No new matter has been added.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

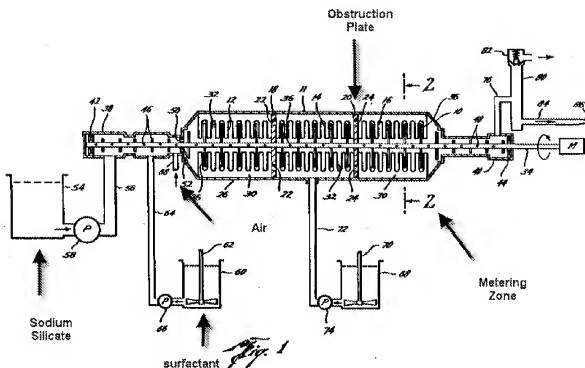
3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-6, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mallow et al. (PN 3741898).

a. With regards to claim 1, Mallow teaches a method for forming a sodium silicate foam (col. 1 lines 14-20) using the tubular apparatus from Figure 1 below. Mallow teaches that the Sodium Silicate (54) is introduced to the mixer with compressed air (88; col. 7 lines 52-68) where it passes through a three chambered (12, 14, 16) cylindrical mixer with dividing plates between the

chambers (18, 20). The well mixed foam product exits the mixer through an outlet (86).



b. Mallow does not teach that the carrier gas is supplied at a pressure of 7-8 bar, the silicate is supplied at a pressure of 5-60 bar, or that the volume of the foam which is delivered is on the order of about 5-25 times an original volume of the silicate. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to change the operating conditions, such as operating pressures, of Mallow to change the physical properties of the final

product, such as expansion values of the foam. This would include adjustments of the pressure of the carrier gas and silicate pressure of 7-8 bar and 5-60 bar respectively to achieve foam expansion of 5-25 times normal volume.

c. With regards to claims 2-6 with respect to claim 1, Mallow teaches using compressed air being added to the mixer (col 7 ln 45-46), using sodium silicate as the silicate (abstract), adding a surfactant to the mixer (abstract, "surface tension depressant").

d. With regards to claim 9 with respect to claim 1, the mixture comprising sodium silicate is metered through the mixer by pumps (Fig. 1 - 58, 68, 74) and the pressure of the air (col 8 ln 9-12) which takes place downstream from the location of the addition of the compressed air to the chamber, because the pressure provided by pump 74 added to the middle chamber takes place downstream from the inlet port for the compressed air.

e. With regards to claim 10, Mallow teaches as seen in Figure 1 above creating a foam product by introducing sodium silicate (54) and compressed air (88) into a mixing chamber where it passes through a three chambered (12, 14, 16) cylindrical mixer with dividing plates between the chambers (18, 20). The well mixed foam product exits the mixer through an outlet (86). Mallow does not teach that the carrier gas is supplied at a pressure of 7-8 bar, the silicate is supplied at a pressure of 5-60 bar, or that the volume of the foam which is delivered is on the order of about 5-25 times an original volume of the silicate. However, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to change the operating conditions, such as operating pressures, of Mallow to change the physical properties of the final product, such as expansion values of the foam. This would include adjustments of the pressure of the carrier gas and silicate pressure of 7-8 bar and 5-60 bar respectively to achieve foam expansion of 5-25 times normal volume.

5. Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blount (PN 4260696).

With regards to claims 16-20, Blount teaches a method for using a foam containing silicate (col 1 ln 15-22; col 2 ln 10) and compressed air (col 9 ln 27-29) to perform as an adhesive (col 1 ln 26; col. 12 ln 39-47), fire retardant (col 7 ln 27), moisture repellant (col 9 ln 46), binder (col 12 ln 14-16), and impregnating agent (col 9 ln 65). Although Blount teaches a foam polyurethane in addition to sodium silicate, the product as claimed does not preclude the addition of other materials to the foam. Although Blount does not teach that the foam is formed under the same process conditions, and therefor is not structurally the same foam, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a silicate foam in the manner taught by Blount regardless of the specific process forming conditions given that the foam is still a silicate foam and capable of being used as such.

Note: Where ... the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not

necessarily or inherently possess the characteristics of his claimed product.

**Whether the rejection is based on “inherency” under 35 USC § 102, on prima facie obviousness” under 35 USC § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO’s inability to manufacture products or to obtain and compare prior art products.” In re Best, 562 F2d 1252, 1255, 195 USPQ 430, 433-4 (CCPA 1977).**

6. Claims 16, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niedner et al. (PN 6497945).

Niedner teaches that it is known in the art to use sodium silicate foam for use as an adhesive, binding agent (col 1 ln 66-67 through col 2 ln 1-2), and fire retardant (col 1 ln 45-46). Although Niedner does not teach that the foam is formed under the same process conditions, and therefor is not structurally the same foam, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a silicate foam in the manner taught by Blount regardless of the specific process forming conditions given that the foam is still a silicate foam and capable of being used as such.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1-6 and 9-10 have been considered but are moot in view of the new ground(s) of rejection.

With regards to applicant's argument that the amendment of claim 1 to recite silicate foam, as opposed to silicate based foam, is a limiting amendment, this argument is not found persuasive. Despite the amendment to eliminate the word "based", the claim still contains no language to limit the composition of the foam to preclude other elements.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GALEN HAUTH whose telephone number is (571)270-5516. The examiner can normally be reached on Monday to Thursday 8:30am-5:00pm ET.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571)272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/GHH/  
/Christina Johnson/

Supervisory Patent Examiner, Art Unit 1791